KR 20020058347

Patent Application

- Right Classification: Patent.
- Receiver: Commissioner of KIPO.
- Reference Number: 0007
- Submission Date: 2000.12.29
- Korean Title of Invention: Method of PLD Update Being Followed by MobileCommunication BTS Establishing
- English Title of Invention: Method of PLD Update Being Followed by MobileCommunication BTS Establishing
- Applicant
  - Name: LG Electronics Inc.
  - Applicant Code: 1-1998-000275-8
- Agent
  - Name: Yeong-Cheol Kim
  - Agent's Code: 9-1998-000040-3
  - Registration Number of General Power of Attorney: 1999-024487-2
- Inventor
  - Korean Name: Myeong-Gil Ahn
  - English Name: AHN,Myung Kil
  - Individual id number: Secure Information
  - Postal code or zip code: Secure Information
  - Address: Secure Information
  - Nationality: KR
- Request for Examination: Demand.
- Purport

  We file an application under Article 42 of Patent Act, file a Request for Examination under Article 60 of the same Act. Agent Yeong-Cheol Kim (Signature)

- Official Fee

Application Fee	11 page(s) 29,000 won.
Additional Application Fee	0 page(s) 0 won.
Priority Fee	0 case 0 won.
Examination Fee	2 claim(s) 173,000 won.
Total	202,000 won.

- Attached Documents

  1. 1 summary · specification(drawing).

Patent Specification

- Abstract

Abstract

The present invention relates to the PLD updating program according to the mobile communications BTS establishing in case it increases the base transceiver station, for setting the PLD (Program Loading Data) about the increased base station to the control station.

In case the new base transceiver station was increased, PLD storing topology data and configuring information about the base station which conventionally was increased was loaded in the increased base station and the control station controlling this base station. The DB whole that for this, stored PLD was newly made and it had to replace.

There is a problem that the control station has to be initialized in order to perform this DB change operation. The existing base station communications service which provides the communications service to your family under the administration of the control station according to initialize the control station has to be for a moment stopped.

In BSM, the present invention transmits PLD about the newly increased base station to the control station with IPC. It sets PLD of the newly increased base station to the control station without the break of service. The present invention initializes the control station by updating DB of the control station.

- Representative Drawing

  Drawing 2

- Specification

Title of Invention

Method of PLD Update Being Followed by MobileCommunication BTS Establishing{Method of PLD Update Being Followed by MobileCommunication BTS Establishing}

Brief Description of the Drawings

Figure 1 is a configurated block diagram of the mobile communications systems.

Figure 2 is a flowchart showing the process of setting PLD about the base station which according to the present invention, is increased to the control station.

The description of reference numerals of the main elements in drawings

10, 12: base station 14: control station.

16 : BSM

The Detailed Description of Invention

The Purpose of Invention

Field of Invention and the Prior Art

The present invention relates to the PLD updating program according to the mobile communications BTS establishing, particularly, to the PLD updating program according to the base station increase of the mobile communications in case it increases the base station of the mobile communication, for setting the PLD (Program Loading Data) about the increased base station to the control station.

Generally, the mobile communications (especially, the wireless local loop (WLL)) is a network and the terminal period for providing POTS the communications network which wirelessly connects and which is not wire providing high-speed data as well as the POT (Plain Ordinary Telephone) service, an image and multimedia information including the voice, information and communication, the facsimile (FAX) etc.

Figure 1 is a configurated block diagram of the mobile communications systems.

The mobile communications systems takes charge of the constant area and it is wirelessly connected to the indoor terminal existing in the on-premises and it is elementarily,primarily comprised of base stations (BTS : Base Transceiver Subsystem,10,12,) providing the communications service, control stations (BSC : Base Station Controller,14) for managing each base station, and BSMs (Base Station Manager,16). BSMs (Base Station Manager,16) are operation and maintenance system.

Base stations (10,12, ,) of the mobile communications systems and software system of the control station (14) are comprised of the program and PLD. Here, PLD is the database standing alone in the fixed domain of the main storage device with the program and is on the permanent duty to stillness (Static) data which is not easily changed like the hardware shape information, the information resource, the loading table, the system constant etc for the real time processing. And data put a foundation in the relational model expressed in the table type. Moreover, according to the hardware shape of base stations (10,12, ,) and capacity and operational data, PLD is differently defined.

In case the new base radio station was increased in the mobile communications systems, PLD storing topology data and configuring information about the base station which conventionally was increased was loaded in the control station managing the base station and increased this base station. The database (DB:Data Base) whole of the control station which for this, stored PLD was newly made and it had to set up.

There is a problem that as the task replacing the PLD related DB of this control station is performed, the existing base station communications service providing the communications service to your family under the administration of the control station has to be for a moment stopped.

Technical Problems to be solved by the Invention

As to the present invention, be:vs designed to solve the problem as described above, and the purpose increases the base transceiver station. In that case, it transmits PLD about the newly increased base station to the control station managing the base station through BSM which is an operation and maintenance, and BSM. In that way it sets up PLD even though it does not initialize the control station.

The Structure and Function of the Invention(Device)

The purpose as described above is achieved. And a feature of the present invention provides the method of PLD update according to the mobile communications BTS establishing establishing initial program loading data and includes an operation and maintenance, the process of setuping the BSM, the process of transmitting program loading data stored in an operation and maintenance, and BSM to the increased control station, the process of updating the database of the control station transmitted program loading data, and an operation and maintenance, and the update procedure the PLD related table within BSM.

Referring to the figure concretely, it is the same as that of the next time.

Figure 2 is a flowchart showing the process of setting PLD about the base transceiver station which according to the present invention, is increased to the control station.

Firstly, before performing the task setting PLD about the increased base transceiver station to the control station, BSM has to be made the setup (Set-Up) done as the priming. For this, the initial PLD for the base stations and the control station having under the administration of BSM has to be built in BSM (S21). And the input of the transfer instruction for transmitting PLD about the increased base transceiver station as described above to the control station managing the increased base station as described above if the BSM setup finishes is waited for (S22).

Firstly after PLD about the increased base station as described above is made (S24) if a next, and an operator input the base station increase command to BSM (S23), whether exist or not of the control station managing the increased base station is confirmed (S25). The base station increase not right reason of the object that it is impossible to the base station increase since it does not have the control station which manages the increased base station in case it does not have the control station is outputted (S30). It reverts to the process of S22 and the base station increase command of an operator is waited for.

But in case it is confirmed that it has the control station managing the increased base station as described above, whether exist or not of the base station which this time, is increased is confirmed (S26). The base station increase not right reason of the object that it is impossible to the base station increase since it already has the increased base station in case it has the confirmation result, and the increased base station is outputted (S30). It reverts to the process of S22 and the base station increase command of an administrator is waited for.

But in case it is confirmed that it does not have the increased base station as described above, PLD is transmitted to the control station (S27). Here, the method in which BSM transmits PLD to the control station is according to due to the IPC (Inter Process Communication) communication.

Thus, as to the control station, by updating DB which is transmitted PLD and stores PLD about each base station it sets up PLD about the newly increased base station (S28).

And BSM changes the PLD table about each base stations managed with an addition or it stores for its own (S29).

The present invention was circumstantially explained about the above-described embodiment. However, it can change in the thought of the present invention and range as a correction, it is clear to the person skilled in the art of the field in which the present invention belongs. And it belongs to the patent claim of that correction or the change silver the present invention.

Effect of Invention(Device)

As described above, in BSM, the present invention transmits PLD about the newly increased base station to the control station with IPC and the control station thus updates the PLD related DB. In that way it sets PLD of the newly increased base station to the control station without the break of service. The present invention initializes the control station.

Scope of Claim(s)

Claim [1]

The method of PLD update according to the mobile communications BTS establishing comprising: the process, of transmitting program loading data stored in the process, of setuping an operation and maintenance, and the BSM it establishes initial program loading data an operation and maintenance, and BSM to the increased control station the process, of updating the database of the control station transmitted program loading data an operation and maintenance, and the update procedure the PLD related table within BSM.

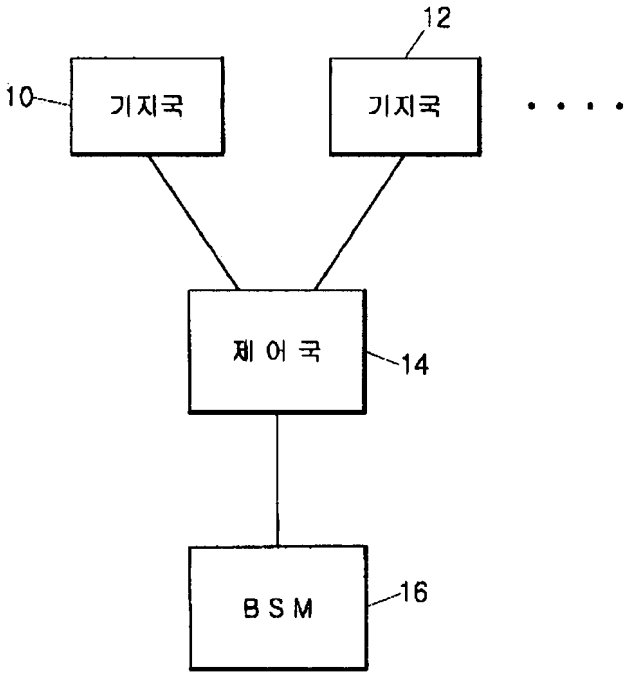
Claim [2]

The method of PLD update according to the mobile communications BTS establishing of claim 1, wherein in the process of transmitting program loading data stored in an operation and maintenance, and BSM with the increased base transceiver station as described above, the mobile communications BTS establishing command is input; and whether it has the control station managing the base station reqired with an enlargement or not includes the step judging whether or not, the step that has the control station managing the base station reqired with the decision result of the control station whether exist or not, and an enlargement; and determines whether it already has the base station reqired with an enlargement, and the step that does not have the base station reqired with the decision result of the base station whether exist or not, and an enlargement; and transmits program loading data stored in an operation and maintenance, and BSM to the control station.

Drawing

Drawing(s)

Drawing1



Drawing2